

A Hardy inequality with a point-singular weight inside a domain

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Abstract

Sobolev spaces with weights taking infinite values at some interior points of a two-dimensional domain are considered. For functions from these spaces, a Hardy inequality is obtained. Embedding theorems for weighted Lebesgue spaces and equivalent renorming theorems are proved. © 2013 Pleiades Publishing, Ltd.

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Keywords

embedding theorems, equivalent renorming theorems, Hardy inequality, weighted Sobolev spaces